BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Applied Science Pearson BTEC International Level 3 Foundation Diploma in Applied Science Pearson BTEC International Level 3 Diploma in Applied Science Pearson BTEC International Level 3 Diploma in Environmental Science Pearson BTEC International Level 3 Extended Diploma in Applied Science Pearson BTEC International Level 3 Extended Diploma in Environmental Science
Unit number and title	**Unit 28: Sustainable Energy**
Learning aim(s)	**C:** Compare the social, environmental and financial benefits and advantages of the use of renewable energy with the disadvantages
Assignment title	**Benefits and disadvantages of the use of renewable energy**
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	The information materials you have produced for the green energy company you have been on placement with have been well received. You have now been asked to investigate and provide additional information materials that compare social, environmental and financial benefits and advantages of the increasing use of renewable energy with the disadvantages.

Task	Many people are interested in the advantages and disadvantages of social, environmental and financial factors associated with the increasing use of renewable energy. Your information materials must **describe**, **compare** and **evaluate** public perceptions relating to these issues. Social, environmental and financial factors include: o Investment costs o Operating costs o Disposal of waste products o Pollution o Consistency/inconsistency of supply, storage of raw material o Efficiency o Impact of the installation, amount of land required, change of habitat, harm to wildlife, transport, use of fertilizer/pesticides, need for water o Noise and/or visual impact • **Evaluate** the benefits and disadvantages/detrimental effects of the increasing use of the following renewable energy sources, o Solar o Wind o Hydroelectric

	o Biomass o Geothermal Your evaluation will need a conclusion about the most effective renewable energy resource and you will provide reasons to justify your conclusion. You must include a **comparison** of the social, environmental and financial advantages and disadvantages for **nuclear** energy and **biofuels** as energy sources. Include a **description** of the advantages and disadvantages of renewable energy in relation to the social, environmental and financial factors for at least **TWO** of the following energy sources: o Solar o Wind o Hydroelectric o Tidal/wave o Biofuels o Geothermal Correct scientific terminology must be used and sources must be referenced.
Checklist of evidence required	Your information materials will include: • An evaluation of the benefits and detrimental effects of increased use of solar, wind, hydroelectric, biomass, and geothermal power. • A comparison of the social, environmental and financial advantages and disadvantages of using nuclear energy and biofuels as energy sources. • A description of the social, environmental and financial advantages and disadvantages of increasing use of renewable energy.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria, you must show that you are able to:
C.D3	Evaluate the benefits and detrimental effects of increased use of solar, wind, hydroelectric, biomass, and geothermal power.
C.M3	Compare the social, environmental and financial advantages and disadvantages of using nuclear energy and biofuels as energy sources.
C.P5	Describe the social, environmental and financial advantages of increasing use of renewable energy.
C.P6	Describe the disadvantages of increasing use of renewable energy.
Sources of information to support you with this Assignment	https://www.conserve-energy-future.com/advantages-and-disadvantages-of-renewable-energy.php https://www.apse.org.uk/apse/index.cfm/research/current-research-programme/powerful-impacts-exploring-the-social-and-economic-benefits-of-renewable-energy-schemes/ http://large.stanford.edu/courses/2018/ph241/kuet2/ https://www.thebalance.com/nuclear-power-how-it-works-pros-cons-impact-3306336 https://www.conserve-energy-future.com/advantages-and-disadvantages-of-biofuels.php

Other assessment materials attached to this Assignment Brief	e.g. work sheets, risk assessments, case study